



MSD

August 24, 1998

Ms. Liza I. Montalvo
Remedial Project Manager
Kentucky/Tennessee Section
U. S. EPA, Region IV
61 Forsyth Street
Atlanta, GA 30303

Re: Results of Air Quality Monitoring - FY98 Fourth Quarter (FY98-4Q),
(Event No. 23) Lees' Lane Superfund Site, Jefferson County, Kentucky
Administrative Order on Consent, U. S. EPA Docket No. 91-32-C

Dear Ms. Montalvo:

In accordance with paragraph 11, under, Reporting Requirement, of the subject Consent Order and Attachment I, Operation and Maintenance Plan for Post-Removal Site Control at the Lees' Lane Landfill Site, Section 4.2, Air Quality Monitoring, attached for your information and files is one photocopy each of the following items, prepared by Radian Corporation, P. O. Box 13000, Research Triangle Park, North Carolina 27709, and received by MSD on August 20, 1998.

1. Radian Corporation letter, dated August 11, 1998, 2 pages.
2. Figure 1, Lees' Lane Landfill, Sampling Locations, 1 page.
3. Table 1, TO-14 Data Summary for Ambient Air Samples at the Lees' Lane Landfill, Sampling date: July 8, 1998, 1 page.
4. Table 2, On-Site Meteorological Data, Sampling date, July 8, 1998, 1 page.
5. Table 3, TO-14 Data Summary for Gas Monitoring Well Samples at the Lees' Lane Landfill, Louisville, KY, Sampling Date, July 8, 1998; 1 page.



Ms. Lisa Montalvo
August 24, 1998
Page 2

Please advise if you have any questions concerning the attached information.

Sincerely,

A handwritten signature in cursive script, appearing to read "Carl A. Neumayer".

Carl A. Neumayer
Director of Operations

CAN/dc
Lee'sair4Q98

cc: Mr. Jeff Pratt, KNREPC,
Division of Waste Management
Mr. Rick Hogan, KNREPC
Division of Waste Management
G. R. Garner, Executive Director
File: WD-2 (Lees' Lane M & M Quarterly)

219116.2401

August 11, 1998

Mr. Dan Sammons
Chief Chemist
Louisville Metropolitan Sewer District
4522 Algonquin Parkway
Louisville, KY 40211

Dear Dan:

Enclosed is the summary analytical report for the ambient air and gas monitoring well samples collected at the Lee's Lane Landfill site on 8 July 1998 (Quarter 23).

A map of the site, labeled with the sample collection locations for your reference, is shown in Figure 1. Table 1 is a tabular summary for the ambient sample with the primary analytes required for submission to EPA. All ambient air samples with the exception of Location R-3 for this quarter are reporting elevated 5-25 ppbv levels of methylene chloride. Quality control data from the field blank and laboratory replicates support the presences of methylene chloride in these field samples. Location U-1 reported an elevated level of methane (14.3 ppm).

The monitoring sites for the collection were chosen based on a combination of prevailing on-site meteorology and available sites in the adjacent residential neighborhood per the standard sampling protocol. The meteorological conditions were warm (74-86F) with light west-northwest wind increases at midday to moderate (5-10 mph) winds in the afternoon.

Meteorological data readings on-site were invalid due to equipment malfunction, therefore the information displayed in Table 2 was obtained from the Louisville Airport's National Weather Station. The ambient samples were collected 3-5 feet above ground level. The ambient samples collected were integrated over an 8 hour collection period in Summa[®] canisters.

The methane analysis was performed by GC/FID on a separate analytical system from the TO-14 analysis at Radian's Austin Laboratory. The TO-14 analytical methodology using Gas Chromatography/Mass Spectrometry (GC/MS) was employed. Samples were handled with standard laboratory chain-of-custody procedures. Sample canisters and flow controllers were cleaned and blanked using method TO-12 for total nonmethane hydrocarbons prior to field deployment. Eleven of the planned thirteen field samples were successfully collected and analyzed for methane and the TO-14 target analytes. Quality control parameters of precision (repeatability) and spiking of surrogate compounds meet internal Radian required specifications. The reliability of this data set can be characterize as good quality data, based on the repeatability (analytical precision), surrogate spike recoveries, blank levels (acceptable) and the relatively few number of unresolved interfering peaks in the sample chromatogram. The field blank canister

Mr. Dan Sammons

August 11, 1998

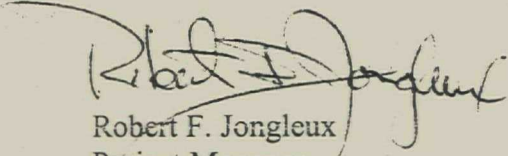
Page 2

reported relatively low level positive hits for methylene chloride (0.17 ppb), propylene (0.06 ppb) and benzene (0.06 ppb). These field blank levels are slightly higher than the laboratory blank levels. The reported results have not been blank corrected in attached tables per our standard project procedure.

Table 3 is a tabular summary of the gas well samples with the primary analytes required for submission to EPA. The gas monitoring wells were NOT screened with portable survey type instruments prior to field sample collection. The OVA supplied by Radian did not clear the courier shipment in time for use at the field site. The LMSD supplied survey equipment was not functional at the time of sampling. The laboratory reported methane values this quarter are high again for Well G-1. This sample required dilution in the laboratory to allow for proper analysis. The presence of methane at the reported level (185,000 ppmv) resulted in coelution for several TO-14 compounds during the analysis. (The coelution was resolved satisfactorily by the dilution step with a corresponding decrease in analytical sensitivity). Several TO-14 analytes were identified at elevated levels in the diluted sample from Well G-1. In addition the Well G-3 reported an elevated level of methylene chloride (36.7 ppbv) and toluene (17.45 ppbv). No samples were collected from Well G-5R or G-5L due to access problems at the site. (*Corrective Action required by LMSD*)

Radian appreciates the opportunity to assist your staff with this project. Please advise me at (919) 461-1242 if you have any questions.

Sincerely,



Robert F. Jongleux
Project Manager

Enclosure

c: M. McCoy, Radian/RTP
Project File/Task 24

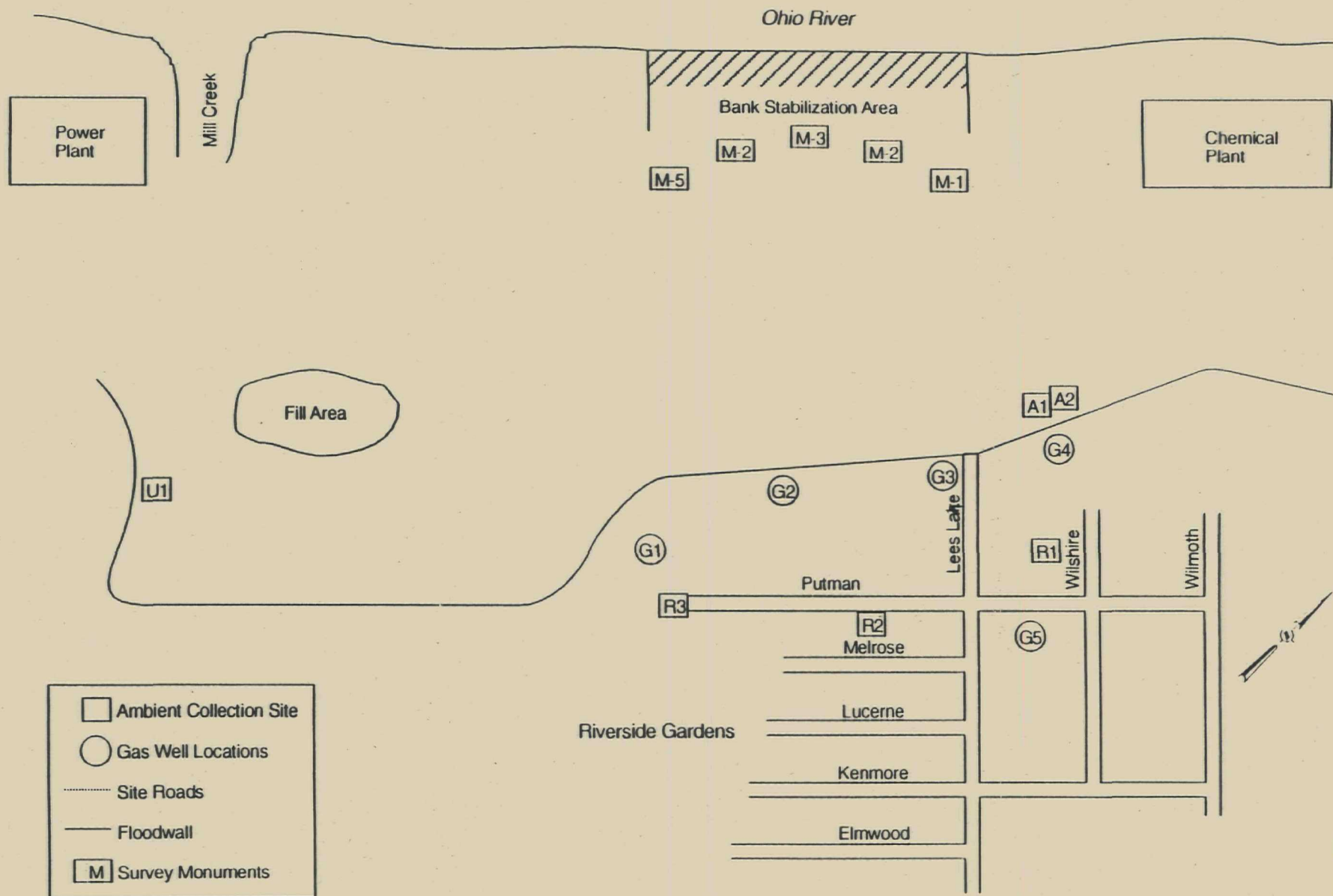


Figure 1. Lees Lane Landfill Sampling Locations

TABLE 1

**TO-14 DATA SUMMARY FOR AMBIENT
AIR SAMPLES AT THE LEE'S LANE LANDFILL
LOUISVILLE, KENTUCKY**

SAMPLING DATE: 8 July 1998

Sample ID	Ambient Air Samples					
	U1	A1	A2	R1	R2	R3
Canister ID	A193103	A193100	RA2029	A193107	A193110	A193221
Dilution Factor	0.0635	0.2188	0.2540	0.3088	0.3123	0.2672
Location	Upwind	On-site	On-site (dup)	Residential	Residential	Residential
Veriflow ID						
Compound (ppbV)						
Benzene	2.15	0.27	0.27	0.30	0.30	0.34
Methylene chloride	29.9	25.6	7.62	12.2	11.1	1.44
Toluene	4.3	0.41	0.39	0.50	0.58	0.82
Vinyl chloride	ND	ND	ND	ND	ND	ND
Xylene (Total)	2.63	0.28	0.25	0.28	0.31	0.41
Methane (ppmV)	14.3	4.73	5.81	4.71	4.58	4.16

TABLE 2

LOCAL METEOROLOGICAL DATA

SAMPLING DATE: 8 July 1998

Time	Barometric Pressure (in Hg)	Temperature (F)	Dewpoint (F)	Wind Direction (from)	Wind Speed (knots)	Observation
0600	29.92	74	72	Calm	0	Cloudy
0700	29.93	74	72	Calm	0	Mostly Cloudy
0800	29.93	74	73	South	3	Mostly Cloudy
0900	29.94	76	74	West	5	Mostly Cloudy
1000	29.95	77	73	West	6	Cloudy
1100	29.97	78	73	Northwest	6	Cloudy
1200	29.97	79	72	West	6	Cloudy
1300	29.96	80	73	Calm	0	Cloudy
1400	29.94	83	74	West	7	Mostly Cloudy
1500	29.93	84	74	Northwest	6	Mostly Cloudy
1600	29.92	85	74	West	8	Mostly Cloudy
1700	29.91	86	74	Variable	6	Mostly Cloudy

Source: National Weather Service, Louisville, Ky.

TABLE 3

**TO-14 DATA SUMMARY FOR GAS MONITORING
WELL SAMPLES AT THE LEE'S LANE LANDFILL
LOUISVILLE, KENTUCKY**

SAMPLING DATE: 8 July 1998

Sample ID	Well Samples						BLANK
	G1	G2	G3	G4	G5-L	G5-R	
Canister ID	A130648	A193112	A193106	A193099	A193108	A193104	A193109
Dilution Factor	0.4034	0.3831	0.3892	0.3632	N/A	N/A	0.3757
Orifice	D104	D3	B1	D8	D6	D33	N/A
Compound (ppbV)							
Benzene	5.29	0.12	0.48	0.07	N/A	N/A	0.04
Methylene chloride	1.17	9.72	36.7	0.25	N/A	N/A	0.169
Toluene	168	0.39	1.60	0.13	N/A	N/A	0.03
Vinyl chloride	6.56	ND	ND	ND	N/A	N/A	ND
Xylene (Total)	3.08	3.18	17.45	0.23	N/A	N/A	0.06
Methane (ppmV)	185,000	3.51	5.54	2.86	N/A	N/A	ND